

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF:

GROUP: 1796

Hiroshi TAKEI, et al.

SERIAL NO: 10/667,671

EXAMINER: ZIMMER

FILED: September 23, 2003

FOR: HEAT CONDUCTIVE SILICONE RUBBER COMPOSITE SHEET

**DECLARATION UNDER 37 C.F.R. § 1.132**

COMMISSIONER FOR PATENTS

ALEXANDRIA, VIRGINIA 22313

Sir:

Now comes Akio SUZUKI who deposes and states that:

1. I am a graduate of OSAKA UNIVERSITY and received my bachelor's degree in the year 1975.

2. I have been employed by Shin-Etsu Chemical Co., Ltd. for 33 years as a researcher for R&D in the field of applications of silicones.

3. I conducted the following measurement using an optical microscope to show that all of the polyethylene-naphthalate (PEN) films with a thickness of 25  $\mu\text{m}$  available under the brand name of "TEONEX" from Teijin DuPont are non-porous in the sense of having no pores of at least 0.3 mm in diameter. Thus, I conducted the measurement with respect to TEONEX Q51 (thickness: 25  $\mu\text{m}$ ), TEONEX Q51DW (thickness: 25  $\mu\text{m}$ ), TEONEX Q81 (thickness: 25  $\mu\text{m}$ ), and TEONEX Q83 (thickness: 25  $\mu\text{m}$ ).

In addition, for the purpose of reference, I also conducted the measurement

with respect to TEONEX Q65F (thickness: 100  $\mu\text{m}$ ) and TEONEX Q65FA (thickness: 100  $\mu\text{m}$ ) in the same way. However, I did not conduct the measurement with respect to TEONEX Q72 film of 1.2-12.0 $\mu\text{m}$  in thickness because I could not obtain it from Teijin DuPont.

Optical microscope photographs of these films were taken by means of an optical microscope (brand name: DIGITAL MICROSCOPE VHX-600, manufactured by KEYENCE CORPORATION). For each of the films, two photographs of different magnifications (x 500 and x1,000) were obtained and attached hereto.

As shown by the photographs, any of the TEONEX Q51, TEONEX Q51DW, TEONEX Q81, TEONEX Q83, TEONEX Q65F, and TEONEX Q65FA does not have observable pores. Specifically, it is clear that the films have no pores of at least 10.00  $\mu\text{m}$  in diameter, much less pores of at least 0.3 mm in diameter.

4. The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

5. Further deponent saith not.

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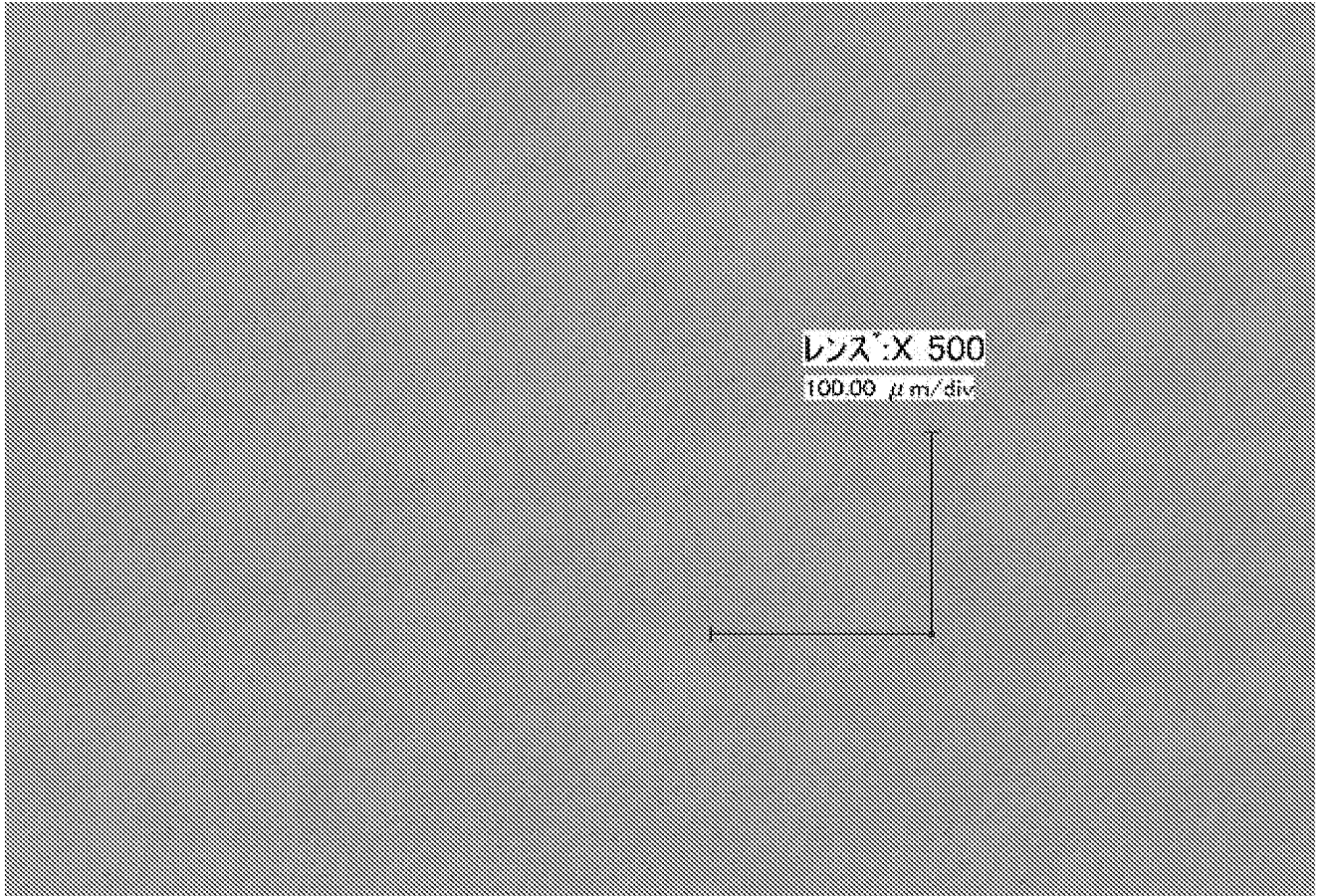
Akio SUZUKI

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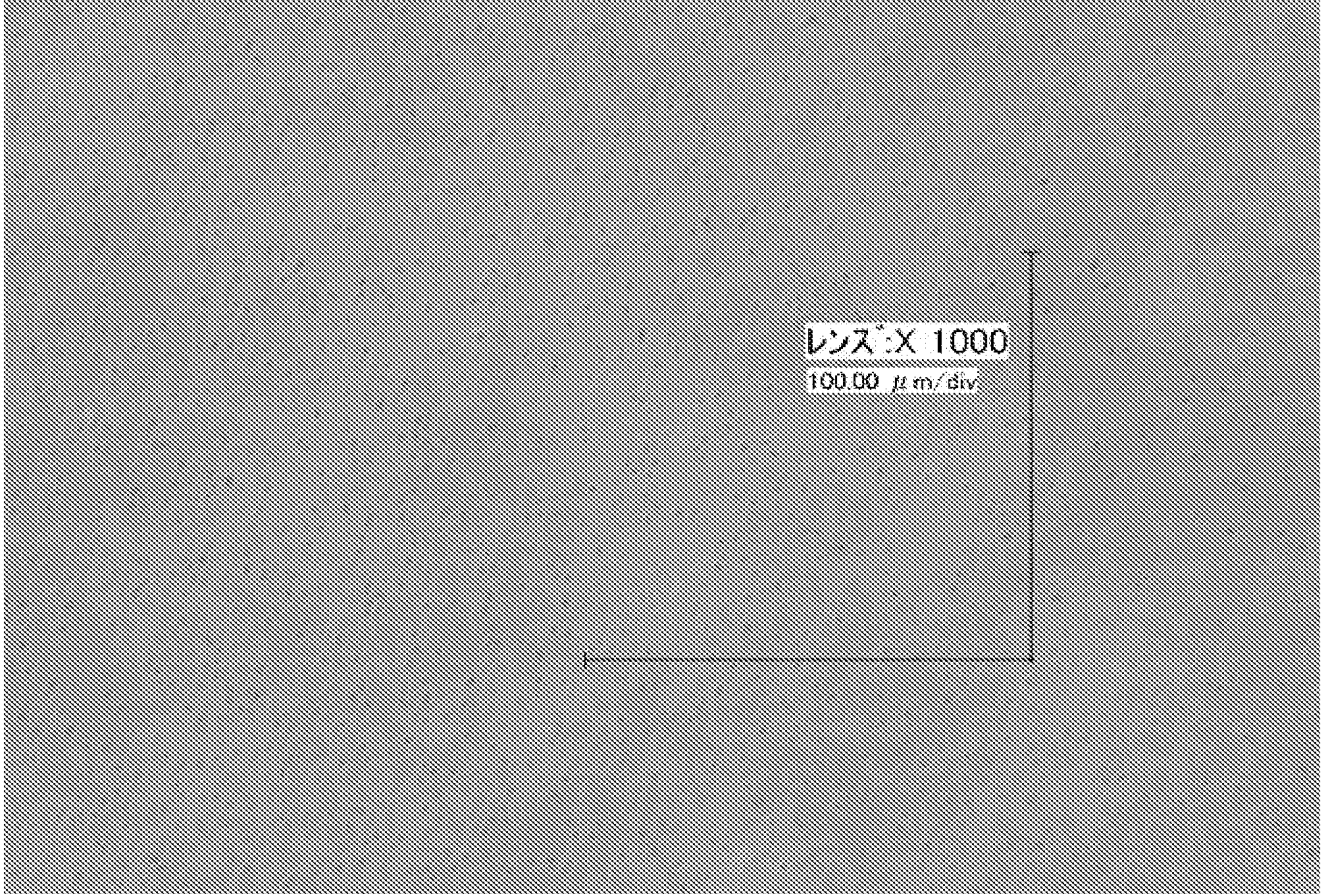
October , 2008

Date

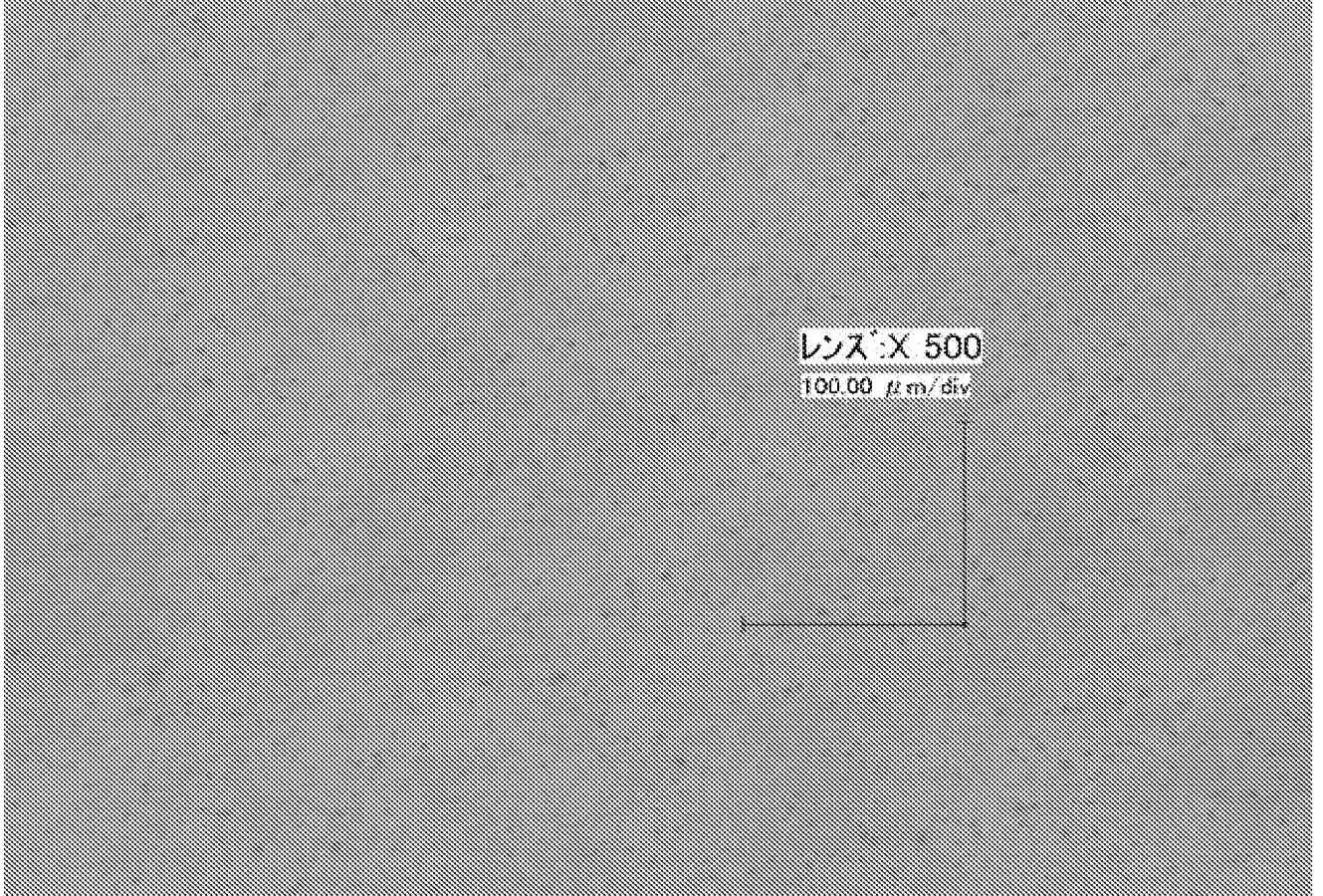
Q51-25  $\mu$ m  $\times$  500



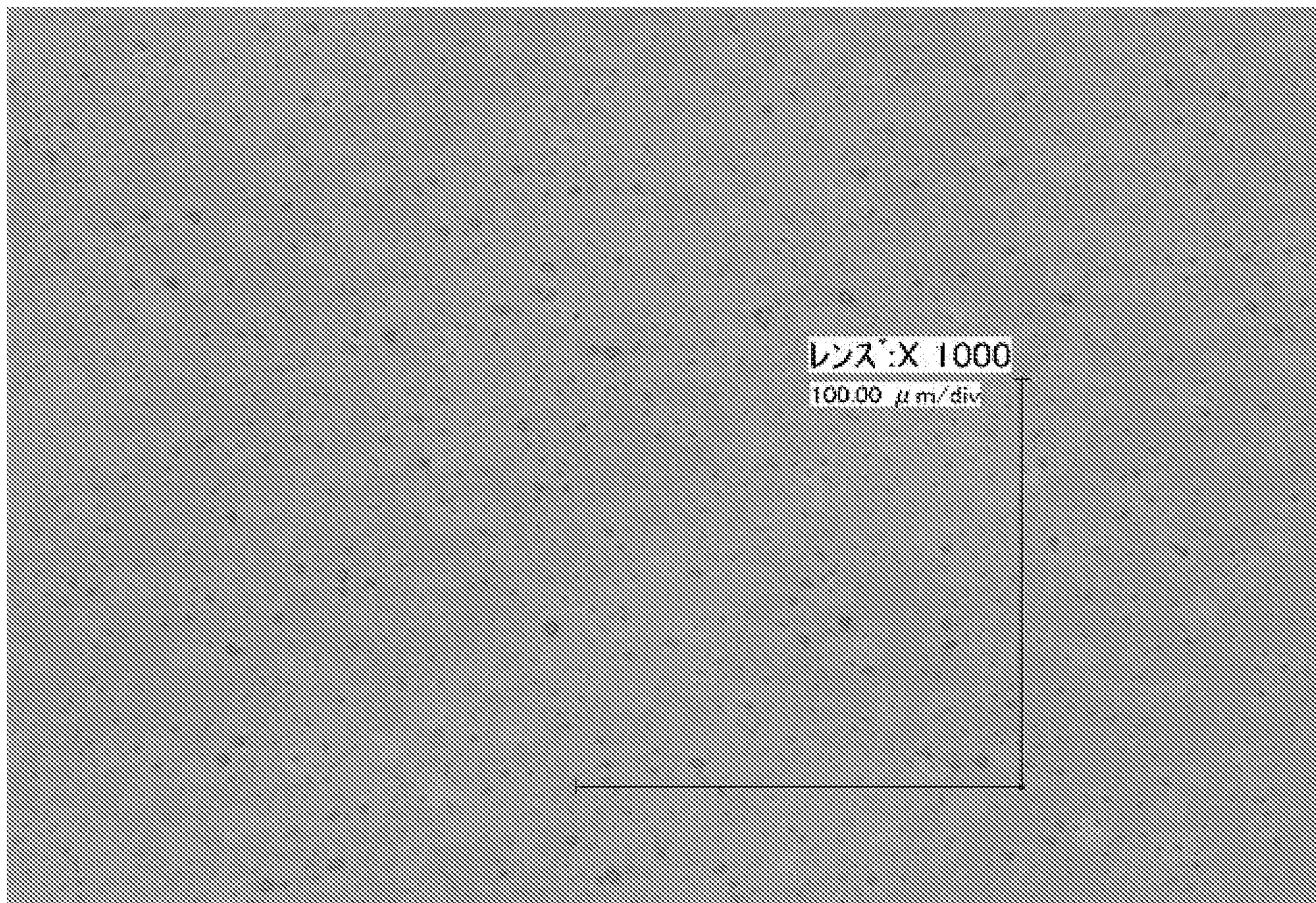
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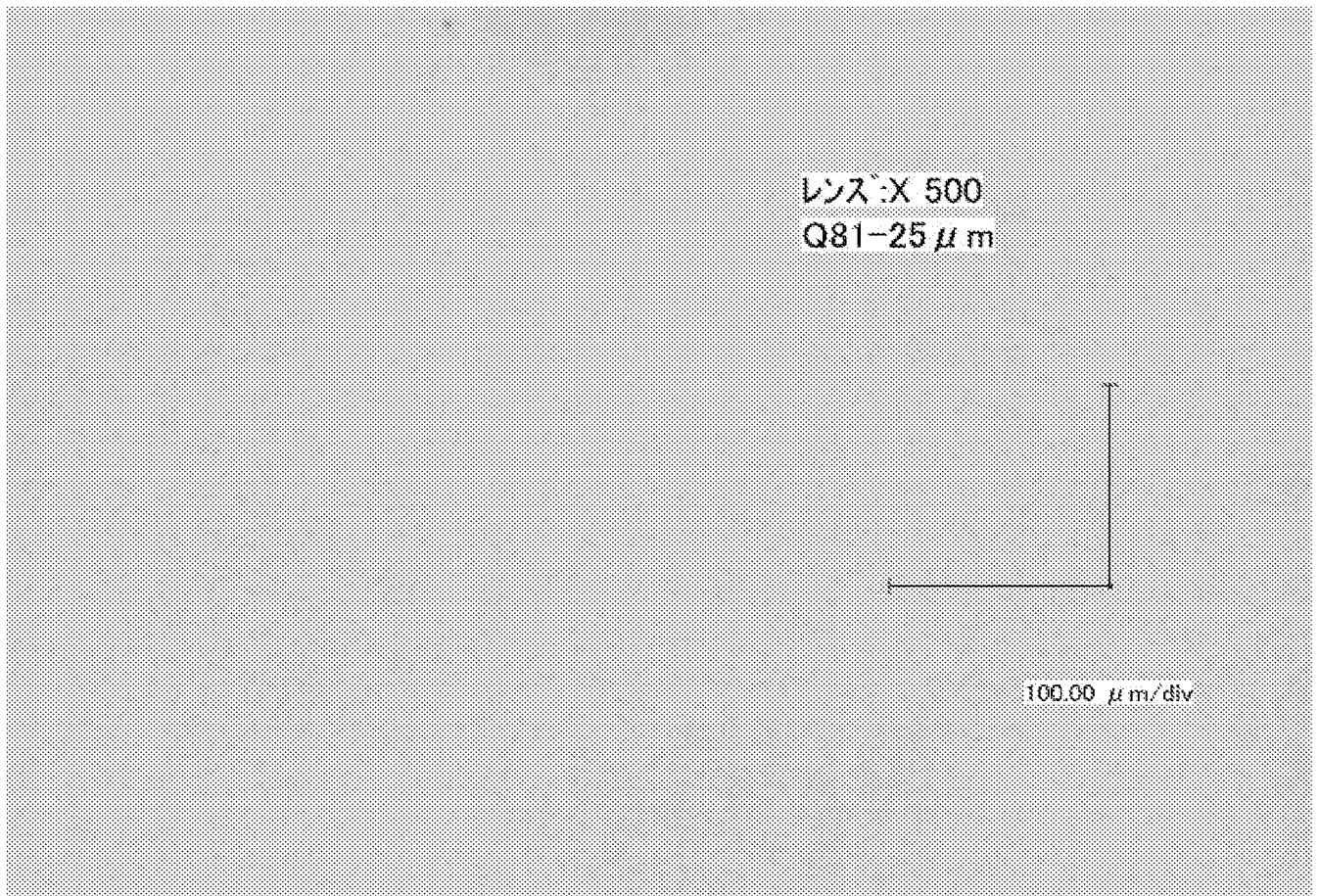


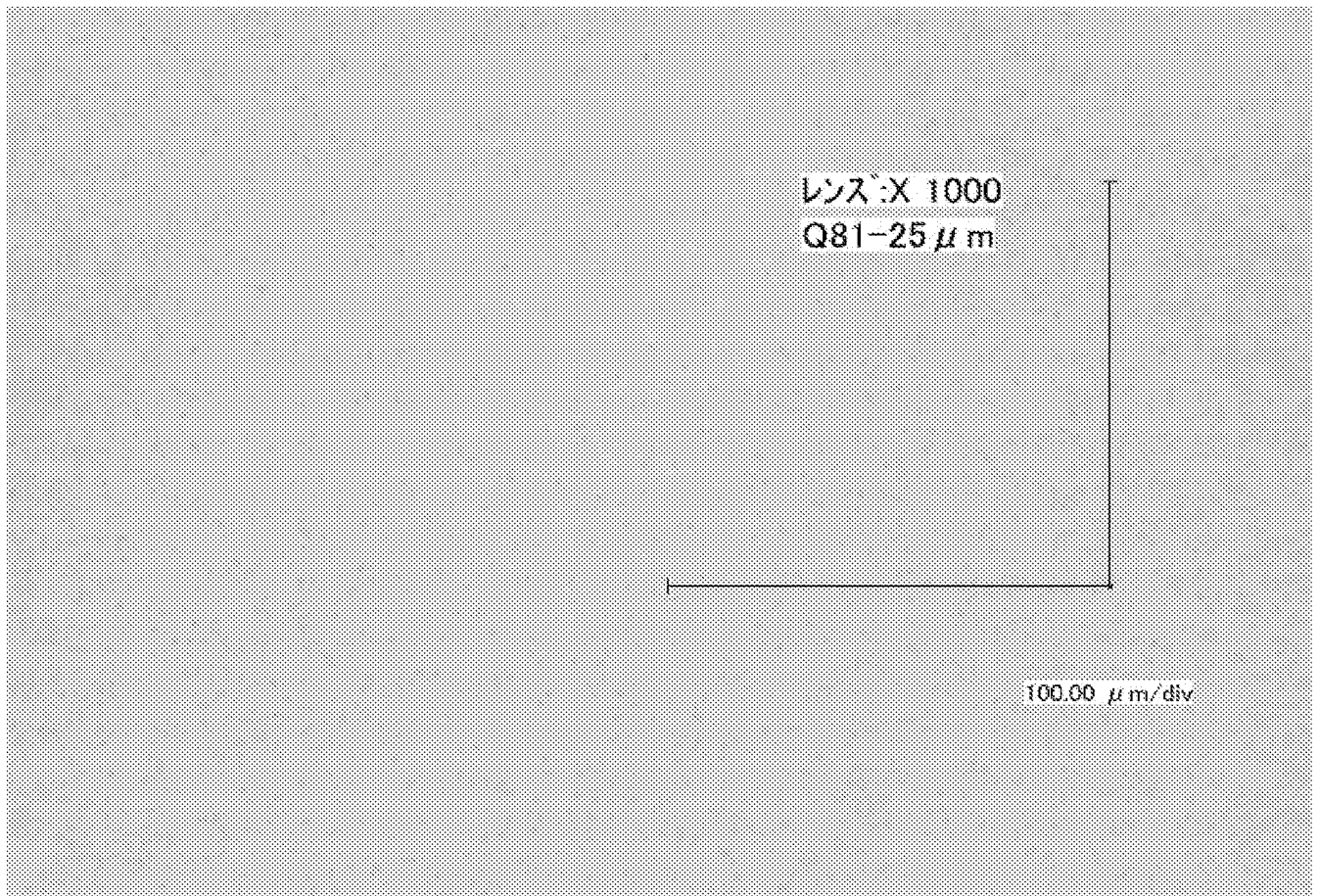
Q51DW-25  $\mu$ m × 500



Q51DW-25  $\mu$ m     $\times 1000$

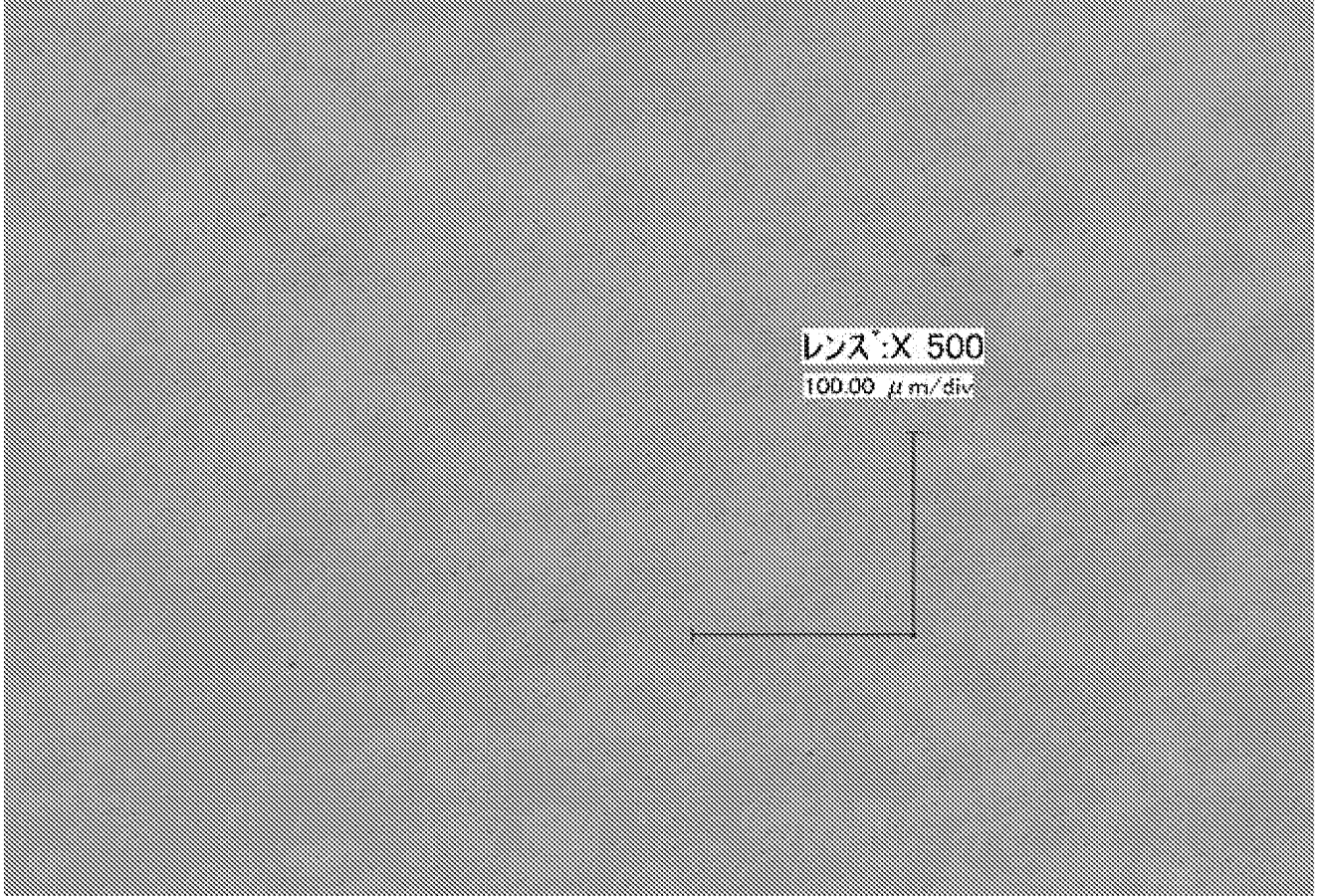




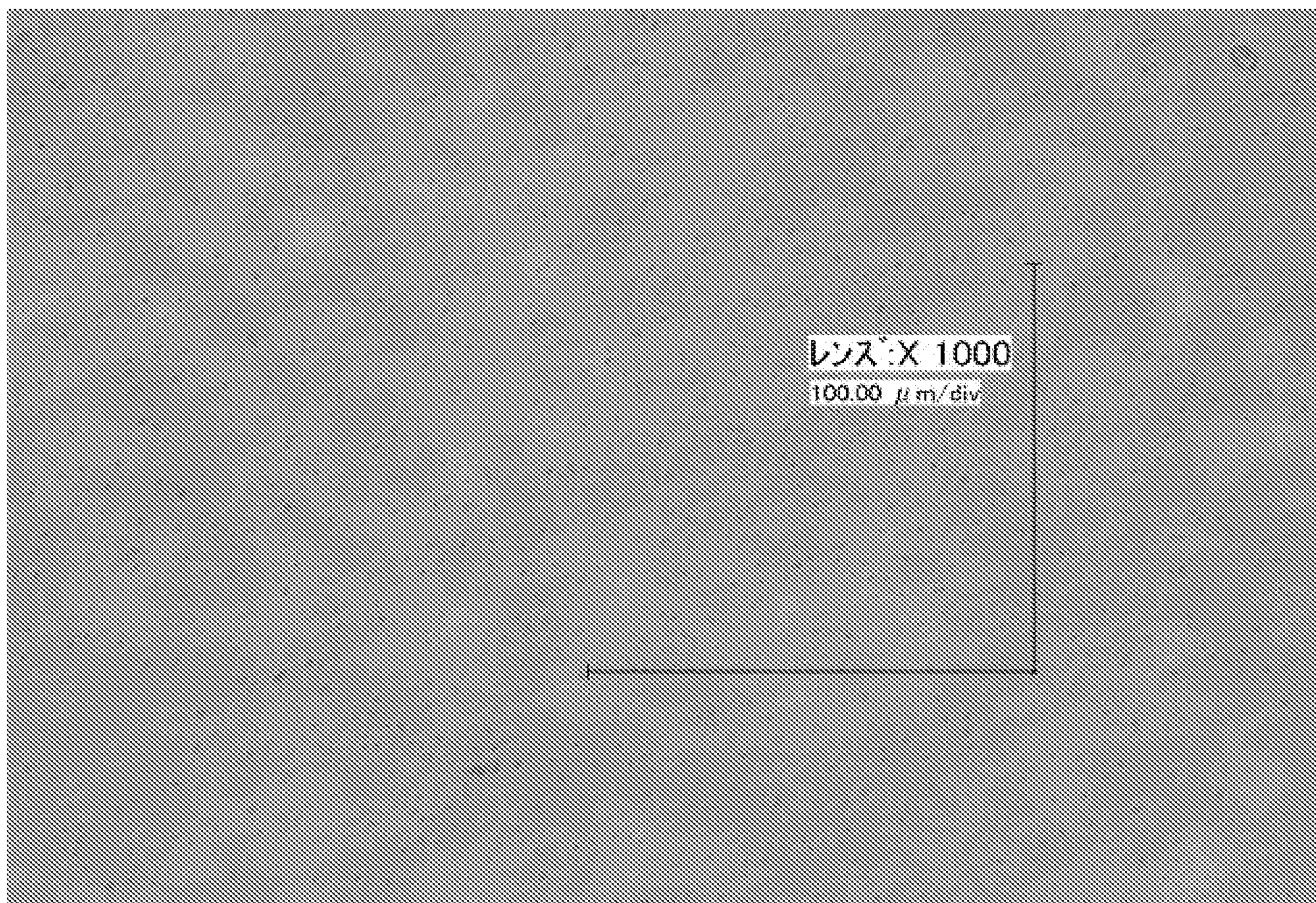




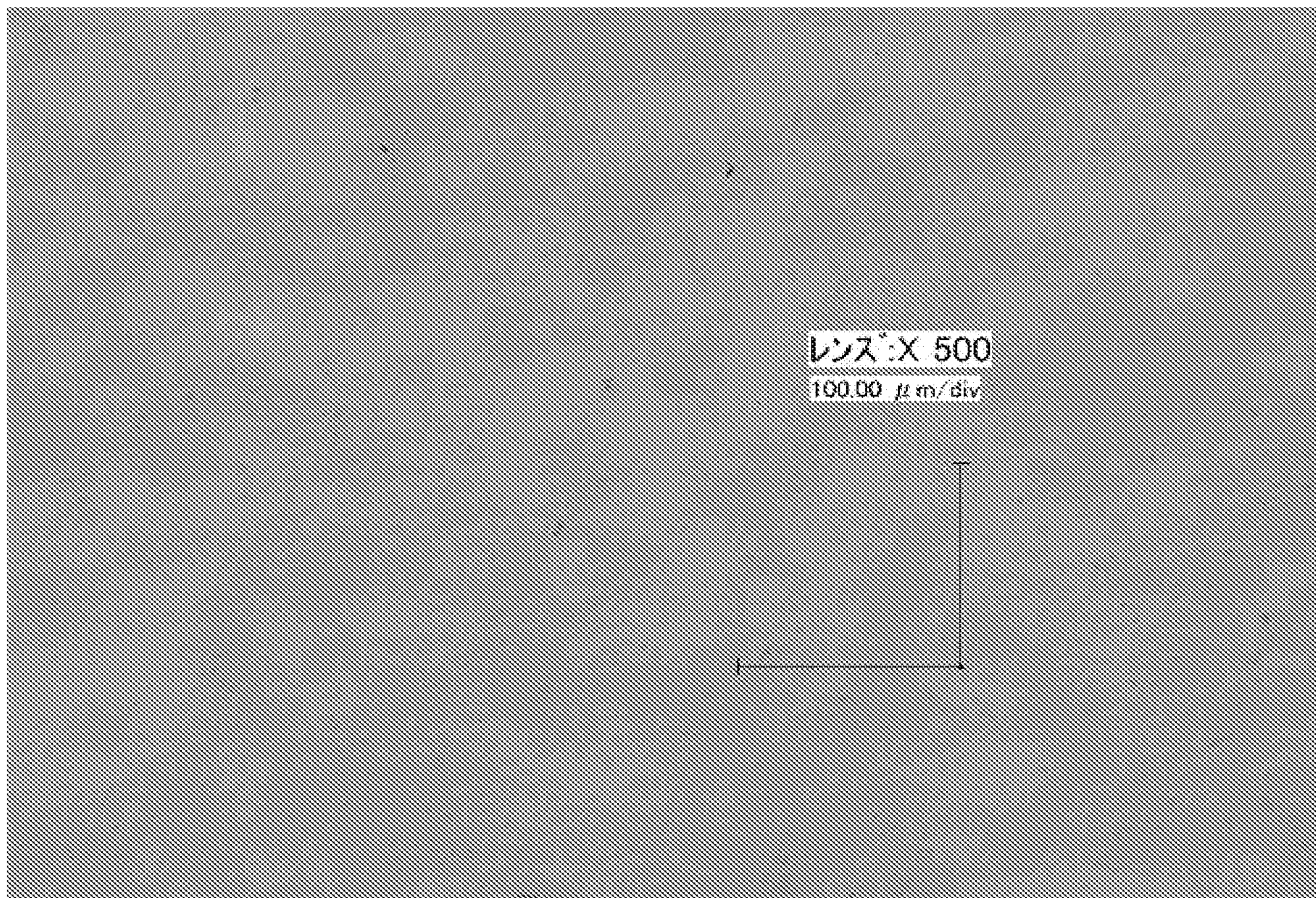
Q83-25  $\mu$ m     $\times 500$



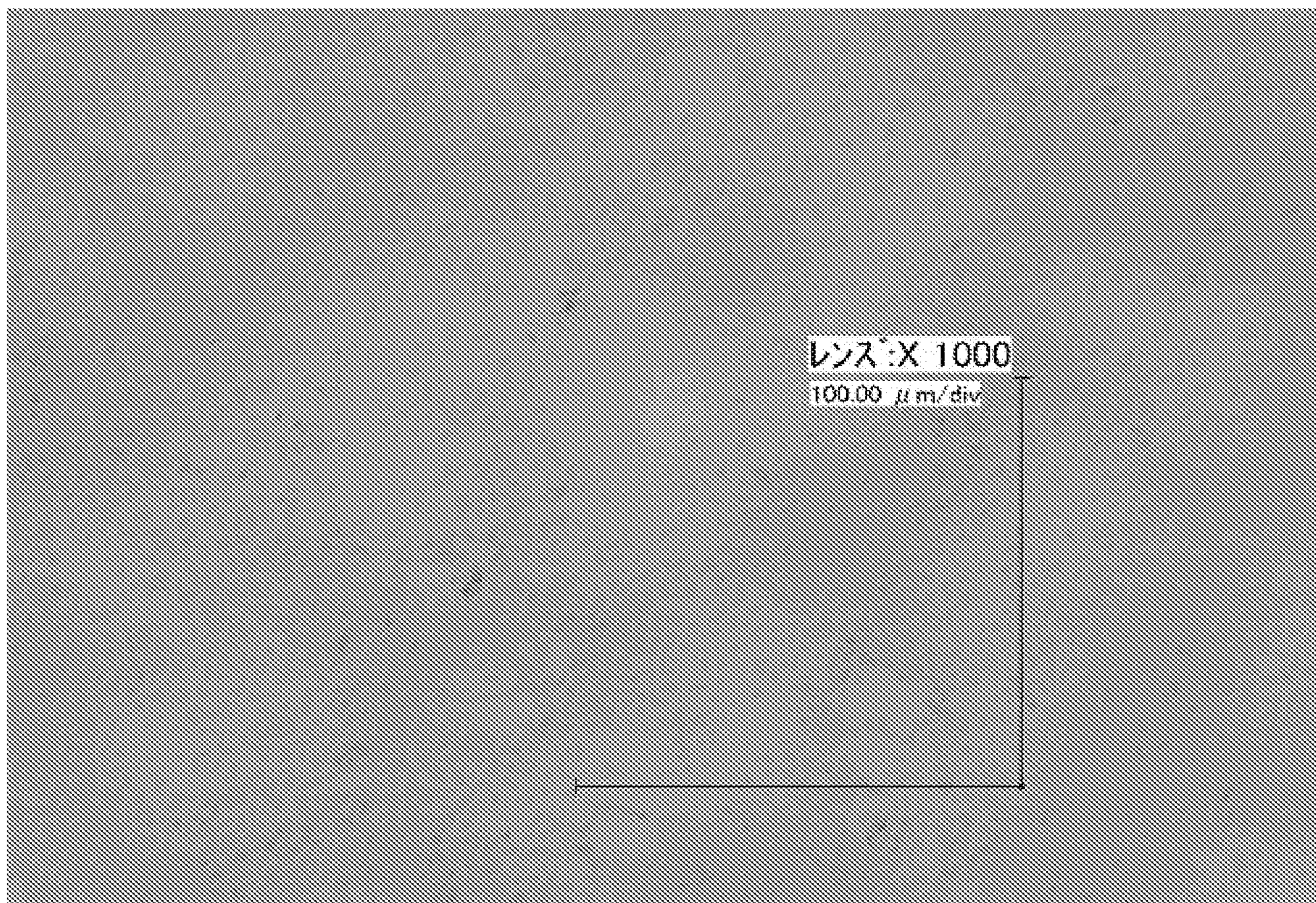
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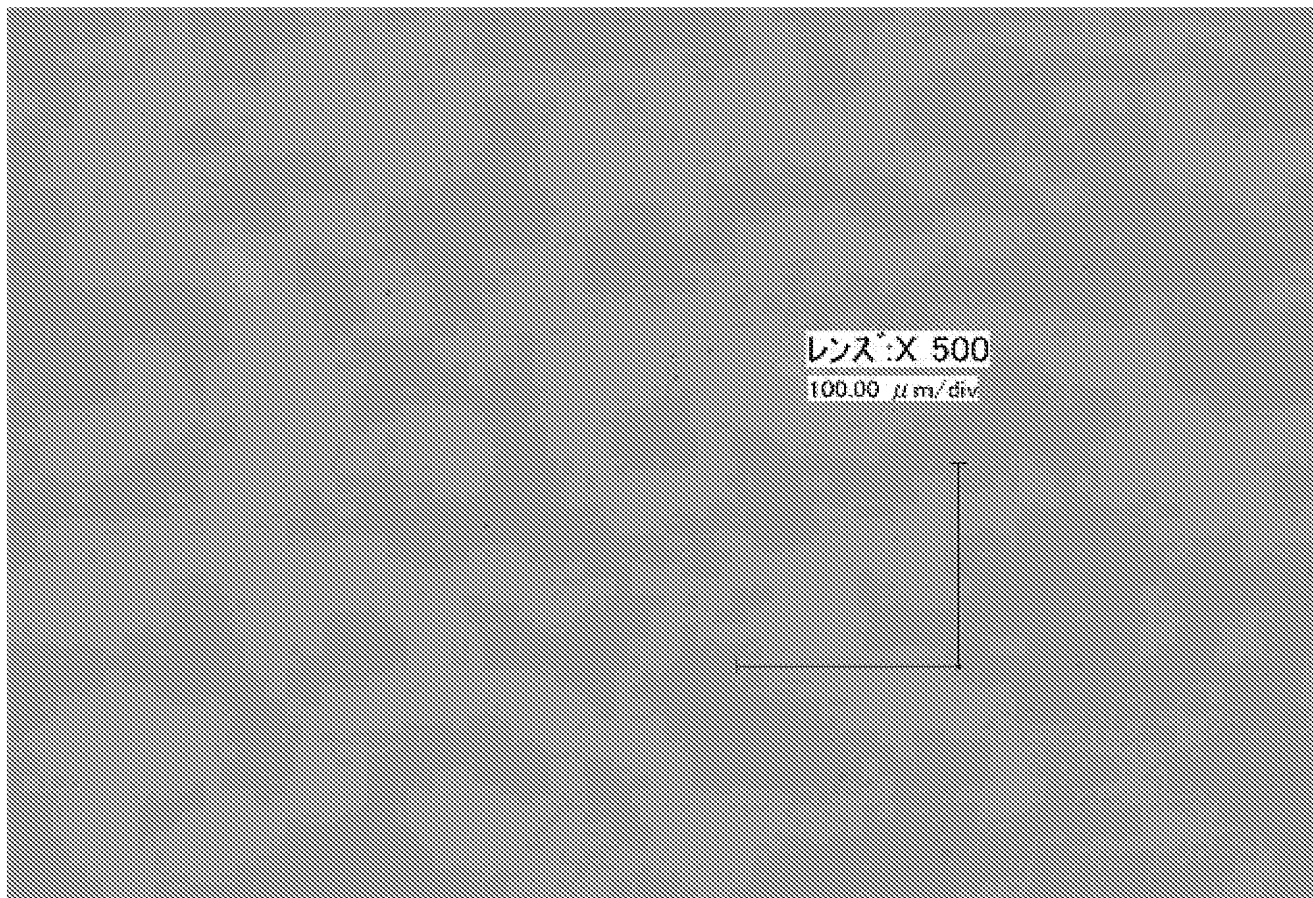
Q65F-100  $\mu$ m  $\times$  500



Q65F-100  $\mu$ m  $\times$  1000



Q65FA-100  $\mu$ m  $\times$  500





Q65FA-100  $\mu$ m  $\times$  1000

